

Code No.: (R22CS501PC)

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III-B.TECH-I-Semester End Examinations (Regular) - December- 2024
COMPUTER NETWORKS
(Common for CSE, CSD)

[Time: 3 Hours]

[Max. Marks: 60]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 10 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks.

PART-A

(10 Marks)

1. a) Define Computer Networks. [1M]
- b) Define ARPANET. [1M]
- c) Define the simplex protocol. [1M]
- d) List two advantages of collision-free protocols. [1M]
- e) What is the shortest path routing algorithm? [1M]
- f) What is congestion control? [1M]
- g) Define the transport layer. [1M]
- h) List the key elements of the TCP protocol. [1M]
- i) Define HTTP. [1M]
- j) What is SNMP used for? [1M]

PART-B

(50 Marks)

2. Illustrate the OSI reference model with neat sketch and explain the primary functions of each layer in detail. [10M]
- OR**
3. Discuss various types of wireless transmission medium and its applications. [10M]
4. Describe the error detection and correction methods used in data link layer protocols. [10M]
- OR**
5. Explain the working of Go-Back-N and Selective Repeat ARQ protocols with examples. [10M]
6. Define Quality of Service (QoS) and explain types of services in QoS. [10M]
- OR**
7. Explain about the link state routing with neat diagram. [10M]
8. What are the services provided to the upper layers in the transport layer and explain briefly. [10M]
- OR**
9. Illustrate the TCP header format with neat sketch and describe the function of each field. [10M]
10. Describe the DNS system and its importance in the internet. [10M]
- OR**
11. Explain the concept of streaming audio and video and its challenges in networks. [10M]
